

STATE OF SOUTH DAKOTA

A REASSESSMENT OF EMERGENCY MEDICAL SERVICES

June 18-20, 2002

National Highway Traffic
Safety Administration
Technical Assistance Team

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BACKGROUND

Injury is the leading cause of death for persons in the age group one through 44 as well as the most common cause of hospitalizations for persons under the age of 40. The financial costs of injuries are staggering: injuries cost billions of dollars in health care and social support resources. In 1990, for example, the lifetime costs of all injuries were estimated at \$215 billion annually. These estimates do not include the emotional burden resulting from the loss of a child or loved one, or the toll of severe disability on the injured person and his or her family. Each year nearly 50,000 people lose their lives on our nation's roads, and approximately 70 percent of those fatalities occur on rural highways. The National Highway Traffic Safety Administration (NHTSA) is charged with reducing accidental injury on the nation's highways. NHTSA has determined that it can best use its limited resources if its efforts are focused on assisting States with the development of integrated emergency medical services (EMS) programs that include comprehensive systems of trauma care.

To accomplish this goal, in 1988 NHTSA developed a Technical Assistance Team (TAT) approach that permitted States to utilize highway safety funds to support the technical evaluation of existing and proposed emergency medical services programs. Following the implementation of the Assessment Program NHTSA developed a Reassessment Program to assist those States in measuring their progress since the original assessment. The Program remains a tool for states to use in evaluating their Statewide EMS programs. The Reassessment Program follows the same logistical process, and uses the same ten component areas with updated standards. The standards now reflect current EMS philosophy and allow for the evolution into a comprehensive and integrated health management system, as identified in the 1996 *EMS Agenda for the Future*. NHTSA serves as a facilitator by assembling a team of technical experts who demonstrate expertise in emergency medical services development and implementation. These experts demonstrate leadership and expertise through involvement in national organizations committed to the improvement of emergency medical services throughout the country. Selection of the Technical Assistance Team is also based on experience in special areas identified by the requesting State. Examples of specialized expertise include experience in the development of legislative proposals, data gathering systems, and trauma systems. Experience in similar geographic and demographic situations, such as rural areas, coupled with knowledge in providing emergency medical services in urban populations is essential.

The South Dakota Office Emergency Medical Services (OEMS), in concert with the South Dakota Governor's Highway Safety Office requested the assistance of NHTSA. NHTSA agreed to utilize its technical assistance program to provide a technical reassessment of the South Dakota Statewide EMS program. NHTSA developed a format whereby the EMS office staff coordinated comprehensive briefings on the EMS system.

The TAT assembled in Pierre, on June 18-20. For the first day and a half, over 22 presenters from the State of South Dakota, provided in-depth briefings on EMS and trauma care, and reviewed the progress since the 1994 Assessment. Topics for review and discussion included the following:

General Emergency Medical Services Overview of System Components

- Regulation and Policy
- Resource Management
- Human Resources and Training
- Transportation
- Facilities
- Communications
- Trauma Systems
- Public Information and Education and Prevention
- Medical Direction
- Evaluation

The forum of presentation and discussion allowed the TAT the opportunity to ask questions regarding the status of the EMS system, clarify any issues identified in the briefing materials provided earlier, measure progress, identify barriers to change, and develop a clear understanding of how emergency medical services function throughout South Dakota. The team spent considerable time with each presenter so that they could review the status for each topic.

Following the briefings by presenters from the South Dakota Emergency Medical Services Office, public and private sector providers, and members of the medical community, the TAT sequestered to evaluate the current EMS system as presented and to develop a set of recommendations for system improvements.

When reviewing this report, please note that the TAT focused on major areas for system improvement. Unlike the State's initial assessment that contained many operational recommendations, several of which were identified as a priority, this report offers fewer yet broader recommendations that the team believes to be critical for continued system improvement.

The statements made in this report are based on the input received. Pre-established standards and the combined experience of the team members were applied to the information gathered. All team members agree with the recommendations as presented.

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ACKNOWLEDGMENTS

The TAT would like to acknowledge the South Dakota Office of Emergency Medical Service and the South Dakota State Office of Highway Safety and for their support in conducting this assessment.

The TAT would like to thank all of the presenters for being candid and open regarding the status of EMS in South Dakota. Each presenter was responsive to the questions posed by the TAT which aided the reviewers in their evaluation. Many of these individuals traveled considerable distance to participate.

Special recognition and thanks should be made regarding the extraordinary efforts taken by Bob Graff, State Director and his staff, and all the briefing participants for their well-prepared and forthright presentations. In addition, the Team applauds the well-organized, comprehensive briefing material sent to the team members in preparation for the reassessment.

Special thanks also to Roy Meyer, Governor's Office of Highway Safety, for supporting this process and providing special assistance to the TAT while in Pierre.

INTRODUCTION

The importance of Emergency Medical Services has never been so much in the minds of Americans as since the terrorist attacks that occurred September 11, 2001.

Americans will not soon forget the valor and sacrifice of the men and women who died trying to rescue others. These qualities were evident in all we have met and spoken with during our brief visit. We thank you and admire you.

We have been equally impressed with the way all have tried to apply the principles of EMS systems to the widely divergent localities and cultures of the State. The government of South Dakota has clearly supported these efforts in meaningful ways; the State will soon have a state-of-the-art communication system for everyone and a continuing education program which will be a model for other states, available in even the most remote parts of South Dakota. The Team was also impressed that the Native American population has been included in all educational opportunities, including benefits from an associates degree program in injury prevention, based in North Dakota.

On revisit, however, the absence of clear statutory authority for a lead agency consistently and predictably funded, and bureaucratically positioned to plan, implement and coordinate a comprehensive EMS system is evident. Particularly disturbing is the continued lack of a State EMS Medical Director, the current absence of a State EMS Advisory Council, and distribution of authority over EMS issues and personnel among Department of Health offices and other state agencies.

The trauma care system has made some good beginnings but now needs the support of an EMS Medical Director as well as financial support from the government and other sources. Crucial to EMS will be financial support and generation of new revenues so that the mission can continue for all citizens of the State of South Dakota.

SOUTH DAKOTA EMERGENCY MEDICAL SERVICES (EMS)

The TAT revisited the ten essential components of an optimal EMS system that were used in the *State of South Dakota: An Assessment of Emergency Medical Services*, in 1994. These components provided an evaluation or quality assurance report based on 1989 standards. While examining each component, the TAT identified key EMS issues, reviewed the State's progress since the original report, assessed its status, and used the 1997 Reassessment Standards as a basis for recommendations for EMS system improvement.

A. REGULATION AND POLICY

Standard

To provide a quality, effective system of emergency medical care, each EMS system must have in place comprehensive enabling legislation with provision for a lead EMS agency. This agency has the authority to plan and implement an effective EMS system, and to promulgate appropriate rules and regulations for each recognized component of the EMS system (authority for statewide coordination; standardized treatment, transport, communication and evaluation, including licensure of out-of-hospital services and establishment of medical control; designation of specialty care centers; PIER programs). There is a consistent, established funding source to adequately support the activities of the lead agency and other essential resources which are necessary to carry out the legislative mandate. The lead agency operates under a single, clear management structure for planning and policy setting, but strives to achieve consensus among EMS constituency groups in formulating public policy, procedures and protocols. The role of any local/regional EMS agencies or councils who are charged with implementing EMS policies is clearly established, as well as their relationship to the lead agency. Supportive management elements for planning and developing effective statewide EMS systems include the presence of a formal state EMS Medical Director, a Medical Advisory Committee for review of EMS medical care issues and state EMS Advisory Committee (or Board). The EMS Advisory Committee has a clear mission, specified authority and representative membership from all disciplines involved in the implementation of EMS systems.

Progress on Meeting 1994 Recommendations

- ◆ A medical director's course was developed and has been offered at six sites.
- ◆ A trauma advisory committee has been in place since October 1995.

- ◆ An EMSC Advisory Board continues to provide a forum for stakeholder input.
- ◆ Ambulance trip reporting data collection has continued and a new system was implemented in March 2002.
- ◆ The State has purchased the Cales Trauma registry for hospitals and there are currently five hospitals using the system.
- ◆ The Governor is in the process of installing a new statewide communications system.
- ◆ An EMS Advisory Council was appointed and in operation for about four years. The sunset for that council was in 2001 and was not re-appointed. Preliminary work has been started on issues for the 2003 Legislature and they include physician/EMT confidentiality, medical direction, DNR, EMT/99, disciplinary actions, scope of practice, and ALS student supervision.

Status

South Dakota organized its EMS Office in 1972 and the state has since enacted statutes and rules to prescribe the duties of the office and the State Board of Medical and Osteopathic Examiners (Board). The Board's role evolved with the introduction of paramedic level care in South Dakota. As a result, the Board's scope of authority is limited to regulation of advanced life support (ALS) and ALS personnel. Grounds for denial or revocation of an ALS provider's license (and those of other professionals licensed by the Board) are detailed in a separate section of South Dakota law.

The Office of EMS (OEMS) statutes and rules regulate the operation of ambulance services, equipment requirements, and basic life support personnel. The rules relating to operation of ambulances have not been revised since 1994, but appear largely unchanged since 1980; the assessment team was provided with a copy of proposed revisions to these rules. Proposed revisions to statutes, in the form of EMS legislative issue papers, have been prepared in anticipation of Department of Health (DOH) decision making before the 2003 legislative session. The citizen legislature of South Dakota meets annually; the legislative issues which will be considered by the Department to advance include: EMS/physician confidentiality and protection from disclosure, medical direction as a requirement for all EMS agencies, provisions for honoring out-of-hospital "do not resuscitate" orders, the adoption of the 1999 National Standard EMT-Intermediate curriculum, authority for discipline of EMT-Basics, and the authority for promulgating scope of practice rules independent of curricula.

The Office of EMS and the Board enjoy an active, collaborative relationship as they work on promulgation processes and interpretation issues or action items, such as requests for allowance of certain skills for individual EMS agency personnel. This relationship extends even further to the performance of duties by the Office of EMS that fall under the jurisdiction of the Board, such as review and processing of all certification and recertification materials for ALS providers, and triage and evaluation of other requests and inquiries. Testimony indicated that this collaboration extends to the development and proposal of statute and

rule, effectively allowing the Office of EMS, which can “see the problem” in the field, to bring the matter and potential resolving language to the Board for its consideration.

Despite the widespread viewpoint that clinical sophistication and EMS operations in a statewide EMS system occur along a continuum, segregation of duties and authority between the office of EMS and the Board create several “disconnects” in terminology, standards and practice. EMT-Basics are certified, while EMT-Special Skills are licensed; complaint investigation is the duty of the OEMS while the discipline of ALS personnel is the duty of the Board; and scope of practice is driven by curricula, but exceptions can be made for the ALS level by Board action while limitations can be imposed by local medical directors. Overall, existing EMS legislation is not comprehensive, i.e., it does not address each of the recognized component areas of EMS, and is lacking significantly in key areas such as discipline as it relates to criminal history and scope of practice for all levels.

The DOH Secretary testified that OEMS has been restored to a level of equal footing with the other programs of the Division of Health Systems Development and Regulation. Significant accomplishments and capabilities of the OEMS and DOH staff are exemplified through the creation of a policy and interpretation guide to promote standardization of EMS staff interpretation of current laws and rules, and a clear understanding and ability to navigate legislative and departmental processes and political sensitivity. The regrettable sunset of a State EMS Advisory Council and the lack of formal recognition or utilization of the resource council that has since evolved leaves a void in the oversight component of the EMS system.

Recommendations

The State Office of EMS should:

- ◆ ***Develop comprehensive state EMS enabling legislation which establishes the current Department of Health EMS Program as the State lead agency to:***
 - Coordinate all State resources and activities related to EMS;
 - Plan, implement and coordinate a comprehensive EMS system which addresses all components of the NASEMSD/NAEMSP definition of an “EMS system”, and which prioritizes for early development, in an integrated (state/regional/local) manner, the following sub-systems:
 - Medical Direction and Protocols;
 - Continuous Quality Improvement;
 - Trauma;
 - Training;
 - Communications; and
 - Data Collection/Linkage/Reporting.
- ◆ ***Transfer all licensure, scope of practice and other EMS personnel oversight***

responsibilities to OEMS from the Board. All levels of EMS practice so regulated should be levels of “licensure” not “certification”.

- ◆ ***Re-establish a State EMS Advisory Council via legislation or executive order with defined subcommittees aligned with the functional components of the EMS system.***
- ◆ Work with the Board to repeal the scope of practice references found in definitions or the body of statutes.
- ◆ ***Modify applications at all levels to include self-declaration of relevant criminal histories and a tracking mechanism to monitor the frequency and types of violations reported.***
- ◆ Research and document the facts, fees and processes associated with criminal background checks and implement, as a requirement for certification, as a maximal protection of the public;
- ◆ Establish the authority and resources to fully conduct investigations of criminal histories and complaints for all levels of providers with appropriate due process and penalty provisions, including the role of the local medical director;
- ◆ Create the authority for OEMS to immediately suspend licenses as appropriate to protect public safety;
- ◆ Create level-specific ambulance service licensure;
- ◆ Identify or create, and require an EMS training program for non-EMS medical personnel responding to scenes;
- ◆ Establish a Do Not Resuscitate program which can legally be honored in the field by certified EMS personnel;
- ◆ ***Pursue legislation to establish protection from disclosure and confidentiality provisions in statute***

B. RESOURCE MANAGEMENT

Standard

Central coordination and current knowledge (identification and categorization) of system resources is essential to maintain a coordinated response and appropriate resource utilization within an effective EMS system. A comprehensive State EMS plan exists which is based on a statewide resource assessment and updated as necessary to guide EMS system activities. A central statewide data collection (or management information) system is in place that can properly monitor the utilization of EMS resources; data is available for timely determination of the exact quantity, quality, distribution and utilization of resources. The lead agency is adequately staffed to carry out central coordination activities and technical assistance. There is a program to support recruitment and retention of EMS personnel, including volunteers

Progress on Meeting 1994 Recommendations

- ◆ A survey was completed in January 2002 to establish the top ten concerns of ambulance services in the State. The results were:
 - Training,
 - Recruitment/Retention,
 - Local funding,
 - Other (paperwork, biochemical protection, etc.),
 - Medicare/Medicaid Reimbursement,
 - Scope of Practice,
 - Communication difficulties,
 - Medical direction,
 - Protocols and policies,
 - Liability issues.
- ◆ A current revision of rules has started.
- ◆ Funding from the Office of Rural Health has been used for medical direction issues and the purchase of computers for the new data collection system.

Status

Since the original EMS system technical assessment visit in 1994, there has been progress in a number of areas of the Resource Management component. In the area of data systems development, patient care reporting software and hardware has been

purchased and provided to most of the state's EMS agencies. Additionally, the state has authority to require reporting by local agencies of this data that could potentially enable the State EMS Office to closely monitor and coordinate system resources.

The South Dakota legislature has increased financial support of the system with the one-time allocation of additional dollars for local EMS equipment (\$1 million) and bystander Automated External Defibrillators (\$100,000). Resources available to local EMS agencies have improved significantly with the introduction of resource centers for the provision of training, continuing education and technical assistance. This practice is to be continued with additional funding and contractual support in the next fiscal year.

There was no evidence of centralized monitoring and analysis of EMS system resources. Needs analysis or other processes were not utilized to address the ongoing coordination of system assets. The EMS agency licensure application captures some information pertinent to this function but does not reflect an adequate profile of information regarding the local EMS agency. It is not designed with data collection and analysis functions in mind nor is it used for this fundamental EMS lead agency responsibility. The State EMS Office was not familiar with local EMS agency billing practices and testimony to the TAT indicated most of the volunteer EMS agencies probably were not billing appropriately for services.

Ambulance service districts and regional authority models were demonstrated to be excellent models of community EMS operations. Other models of horizontal collaboration were also demonstrated to be successful in the state (e.g., the Minnehaha rural cooperative). It was also noted by the TAT that EMS operations on the various Native American reservations were "challenged" to survive financially and many rural and frontier EMS agencies were experiencing difficulty in replacing aging ambulances due to low call volumes and insufficient tax bases in their communities.

Recommendations

The State Office of EMS should:

- ◆ ***Expand licensure applications to capture information to profile the state EMS systems resources;***
- ◆ Develop an in-office information technology capability to analyze EMS system resources;
- ◆ Develop access to the state telehealth and community T-1 system to assist the state office in coordination of the resource management function, distance education and meetings;

- ◆ Explore other opportunities to outsource services and/or technical assistance;
- ◆ ***Encourage ambulance services to bill appropriately for services;***
- ◆ Encourage innovative methods of system collaboration and operation like the ambulance district model and others by demonstrating these best practice models to county commissioners and other community stakeholders;
- ◆ Explore other opportunities for collaboration and integration within the healthcare system.
- ◆ Limit distribution of future grant funds to ambulance services that have implemented appropriate billing, use of ambulance district revenue generation, or both.

C. HUMAN RESOURCES AND TRAINING

Standard

EMS personnel can perform their mission only if adequately trained and available in sufficient numbers throughout the State. The State EMS lead agency has a mechanism to assess current manpower needs and establish a comprehensive plan for stable and consistent EMS training programs with effective local and regional support. At a minimum, all transporting out-of-hospital emergency medical care personnel are trained to the EMT-Basic level, and out-of-hospital training programs utilize a standardized curriculum for each level of EMS personnel (including EMS dispatchers). EMS training programs and instructors are routinely monitored, instructors meet certain requirements, the curriculum is standardized throughout the State, and valid and reliable testing procedures are utilized. In addition, the State lead agency has standardized, consistent policies and procedures for certification (and re-certification) of personnel, including standards for basic and advanced level providers, as well as instructor certification. The lead agency ensures that EMS personnel have access to specialty courses such as ACLS, PALS, BTLIS, PHTLS, ATLS, etc., and a system of critical incident stress management has been implemented.

Progress on Meeting 1994 Recommendations

- ◆ The 15 hour First Responder class is no longer offered and has been replaced by the USDOT 40 hour First Responder Course. Upon completion students can take the National Registry Examination to become certified. The State does not certify them because it does not qualify them to be part of an emergency response crew.
- ◆ In cooperation with the EMT Association and Avera-McKenna Hospital a bridge course incorporating the revisions in the 1994 Basic Curriculum was developed offered 12 times over a two-year period. To be recertified every EMT had to attend one of those courses.
- ◆ All continuing education classes must be pre-approved by the EMS Office. A completion certificate and a scannable roster is mailed to all instructors prior to the training being offered.
- ◆ An Instructor/Coordinator program has been taught every year since 1994 and there are about 150 Instructor/Coordinators in the State. They recertify every two years to remain current.

Status

There have been significant improvements in a number of areas since the 1994 assessment. Among these, the development and implementation of an Instructor/Coordinator (I/C) training program with a curriculum based on the most recent USDOT revisions has been well received statewide. The subsequent development of a

cadre of 150 instructor/coordinators around the state has filled a critical void.

The evolution of wonderful training and education resources promises assistance in addressing recruitment and retention needs around the state. Sioux Valley Hospital USD Medical Center, under contract to OEMS, offers monthly two-hour training programs for 113 out of the 131 ambulance services. This unique and laudable system of programs reduces travel and logistical barriers to meeting training requirements for recertification and relicensure. The staffs at Sioux Valley and the University have also proven to be invaluable sources of technical assistance to ambulance services in areas such as billing under the new Medicare fee schedule and EMS for Children programs. The Avera-McKenna Hospital School of EMS has achieved accreditation by the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions. It offers all certification/licensure programs through the paramedic level and provides a variety of specialty courses such as BTLs under contract with OEMS. Finally, the Mountain Plains Health Consortium is a remarkable and unique resource providing EMT, paramedic, ACLS, PEPP, AMLS, and other courses to Native American and other EMS providers through a variety of on-site and distance-learning media.

The migration to the 1994 EMT-Basic (EMT-B) curriculum was carried out successfully, and the 15 hour first responder course was replaced by the First Responder National Standard Curriculum. The latter, however, is not integrated in the formal EMS system through certification or licensure by OEMS. The EMT-Special Skills level has declined to 16 providers and is proposed to be folded into the EMT-I/99 level as it evolves. There are no plans currently to transition EMT-I/85 licensees to EMT-I/99, allowing both levels to coexist indefinitely into the future. A mechanism was adopted for pre-approval of continuing education programs and excellent resource guides, which personnel may use for recertification/relicensure purposes, have been developed.

There continues to be no statewide plan for education, method for surveilling manpower and training needs on a continuing basis, or committee structure for developing and coordinating components of the EMS education system. This leaves OEMS in an otherwise undirected position in which it must rely upon strict adherence to national standard curricula and a course by course application method of approving programs for licensure and certification. There is no statewide quality improvement system to support I/Cs conducting training programs for licensure, beyond reporting of pass/fail rates. A network of I/Cs has evolved and is supported by regional OEMS staff.

Central authority for education and training is established in SDCL: 34-11 and SDCL: 36-4B. These statutes give the Department of Health and the Board of Medical and Osteopathic Examiners the authority to establish training programs and standards for certification and licensure. EMT-Basics receive "certifications" from the Department of Health OEMS, while ALS personnel (and most other professions) receive professional "licenses" from the Board of Medical and Osteopathic Examiners and other Boards under

the Department of Commerce. The roles and responsibilities of the two state agencies are generally compatible but are not well-defined in certain critical areas such as disciplinary actions, scope of practice and protocol delineation and approval.

There is a variety of specialty training programs now available statewide and integrated into the EMS system. Many programs, such as PHTLS and BTLs, have been financially supported by OEMS. There is a need for additional funding to meet the demand for these courses. An Internet website has been developed by OEMS and is used to post courses for certification and licensure, and has potential for posting of specialized EMS training courses and other programs.

The EVOC course is mandated only for non-EMTs on a three-person crew. The Rural Distance Training Network satellite training program is no longer utilized. Statewide telemedicine-targeted technology has potential to assist in meeting training needs and augmenting the monthly recertification training system in the provision of content not included in that system.

Critical Incident Stress Management (CISM) teams exist in seven locales around the State, and are staffed by volunteers who travel great distances for training and response purposes. There is no statewide support or central coordination offered through OEMS, though team leaders do network informally among themselves. There is no reliable system of 24 hour dispatch of teams, but the new communications system holds promise in this regard.

Recommendations

The State Office of EMS should:

- ◆ ***Establish a statewide education committee as a subcommittee of the EMSAC to:***
 - ***Develop a statewide education plan which includes a manpower needs and training program needs surveillance (ongoing assessment) system and a specific plan for transition of OEMS courses and certification offerings from the EMT-I/85 to EMT-I/99 programs. This should also include a CQI system for courses which monitors student satisfaction and performance, and other indicators established by the committee;***
 - ***Establish a system, and the statutory authority, to allow OEMS to accredit programs of EMS education. Once accredited these programs should be able to offer courses without further OEMS approval;***
 - Establish "First Responder" as a level of licensure; encourage the widespread

promulgation of this level for use by ambulance services, especially volunteers, to recruit new personnel. Ambulance service roles such as care at “stand-by” events and vehicle operation by these personnel should be encouraged.

- Foster collaboration and integration of EMS providers in the community health system, including the use of personnel in clinics and facilities, to the degree that it improves access to care;
 - Explore the potential offered by telemedicine and other interactive audio video and web-based media to disseminate training and continuing education resources;
 - Fund additional BTLS, PHTLS and other specialty programs as indicated by the manpower and training needs surveillance system;
 - List all training and education offerings relevant to EMS personnel, including specialized EMS programs, on the OEMS website.
- ◆ Promote First Responder training in the program of academy training for law enforcement officers, and other public safety personnel;
 - ◆ ***Transfer all licensure, scope of practice and other EMS personnel oversight responsibilities to OEMS from the Board. All levels of EMS practice so regulated should be levels of “licensure” not “certification”;***
 - ◆ ***Establish an explicit and timely process for the investigation of complaints against licensees that integrates with medical direction authorization for licensure and provides adequate protection of the public;***
 - ◆ Develop a statewide support and coordination capacity for Critical Incident Stress Management in OEMS. This should include a statewide response mechanism and notification of services, hospitals and EMS dispatch centers of that mechanism. CISM teams should be provided operational training and continuing education support.

D. TRANSPORTATION

Standard

Safe, reliable ambulance transportation is a critical component of an effective EMS system. The transportation component of the State EMS plan includes provisions for uniform coverage, including a protocol for air medical dispatch and a mutual aid plan. This plan is based on a current, formal needs assessment of transportation resources, including the placement and deployment of all out-of-hospital emergency medical care transport services. There is an identified ambulance placement or response unit strategy, based on patient need and optimal response times. The lead agency has a mechanism for routine evaluation of transport services and the need for modifications, upgrades or improvements based on changes in the environment (i.e., population density). Statewide, uniform standards exist for inspection and licensure of all modes of transport (ground, air, water) as well as minimum care levels for all transport services (minimum staffing and credentialing).

All out-of-hospital emergency medical care transport services are subject to routine, standardized inspections, as well as spot checks to maintain a constant state of readiness throughout the State. There is a program for the training and certification of emergency vehicle operators.

Progress on Meeting 1994 Recommendations

- ◆ The 2001 Legislature appropriated \$1,000,000 for ambulance service equipment and \$100,000 for Public Access Defibrillation.
- ◆ There are now four helicopter services in South Dakota and three fixed wing services offering advanced life support. There are seven other fixed wing services offering basic life support. Two helicopter services are in Sioux Falls, one in Aberdeen and one in Rapid City. Two fixed wing ALS services are in Sioux Falls and one in Rapid City.
- ◆ In an emergency situation there are also helicopters available from the Air National Guard and Ellsworth Air Force Base.
- ◆ Triage and transfer protocols have been developed by the Trauma System Advisory Committee but they have not been implemented on a statewide basis.

Status

There are 131 ambulance services in South Dakota operating 258 certified vehicles. Service sponsorship is:

Private/Incorporated/Paid - 20
Paid Fire – 3

Volunteer – 97
Hospital – 3
Indian Health Service – 7
Federal – 1

Services are staffed by the following certified/licensed personnel:

EMT-B – 2,735
EMT-I/85 – 248
EMT-SS – 16
EMT-P – 258

Since the 1994 assessment, it appears that the percentage of volunteer services has dropped from 85% to 74% and the number of personnel certified or licensed has dropped from 3,800 to 3,257. The Team could not conclude that these figures are indicative of erosion of the volunteer services. Some of the latter decline may be artifact caused by timing of relicensure or figures provided as estimates for the 1994 assessment. No service has filed a 30 day notice of discontinuation and gone out of existence in at least 20 years according to OEMS testimony.

There continues to exist no transportation plan or surveillance mechanism to measure the status of services, vehicles, and other assets of the system. OEMS does maintain data from service licensure and vehicle certification applications, but it is not formatted to facilitate analysis and may not be useful as a surveillance tool.

Ambulance inspection, the equipment and vehicle safety standards enforced, and the forms and remedial action processes are out of date and inadequate. There is no apparent means to remove an unsafe ambulance immediately from service.

The absence of interstate compacts between South Dakota and neighboring states creates unnecessary requirements for dual licensure of services, vehicles and personnel (this varies with each state) and multiple sets of treatment protocol expectations. This is particularly difficult for small, volunteer services whose administrative and financial resources are limited, and that have sufficient difficulty recruiting volunteers without this burden of duplication.

Medical air transport licensure allows basic life support fixed wing air medical service to be offered. This leads the public to believe that they are receiving a medically valuable service for which they should pay when, in fact, there is little if any medical benefit needed or derived en route from this level of care.

The gaps in rotor-wing ALS coverage across the state have been significantly reduced by the inception of a service in Rapid City. There still exist gaps in the Central and Northern

areas of the state where refueling is often required for helicopter response and patient transportation. At the same time, there is duplication of rotor-wing service in Sioux Falls and relative management inefficiency is created. There exist no statewide launch protocols for helicopters.

Ambulance services in low population and call volume areas are hard-pressed to replace ambulance vehicles. Low volume means little patient-derived revenue, and low population means little tax-base potential to support such purchases.

There appear to be laudable examples of well integrated, prioritized and sequenced systems of EMS resource dispatch in several local systems such as Rapid City, Sioux Falls, and the Mitchell area. These pockets of excellence stand in contrast to areas where there is no Emergency Medical Dispatch capacity and, in the extreme, where an ambulance service cannot converse with a dispatcher (e.g. Lemmon). There is excellent progress toward a new statewide communications system which should address the latter.

The Emergency Vehicle Operators Course (EVOC) is well promoted. There remains no mandate that ambulance vehicle operators be EVOC certified, however, except when that driver is a non-EMT third crewmember.

Ground ambulance services are not differentiated by ALS and BLS licenses with corresponding requirements for ambulance equipment.

The statutory "hardship exemption" is constantly in use by approximately 10% of the services licensed, primarily to get around the two-EMT response requirement. It is not used as a result of inability to comply with the minimum response time requirement, nor the 7-day/24 hour availability requirement for ambulance services.

Recommendations

The State Office of EMS should:

- ◆ Analyze the apparent decline in volunteer services and in licensed personnel. Take action indicated, if any, to address the causes of the declines.
- ◆ ***Develop a transportation plan. Using the licensure application as a survey tool, configure databases to create a usable mechanism to assess the status of transportation assets on an annual basis.***
- ◆ Repeal the BLS, fixed wing medical air transport license.
- ◆ Create categories of ALS, intermediate life support (ILS) and BLS ground ambulances

with appropriate vehicle equipment standards for these levels.

- ◆ ***Overhaul the BLS ambulance equipment standards and create standards for ALS ambulances. These should be consistent with ACEP/ACS, EMSC, and other nationally recognized equipment standards. Revise inspection forms and process accordingly. Establish a rules provision enabling OEMS inspectors to immediately remove an ambulance from service that presents a safety hazard to patients and/or crew;***
- ◆ Create a model interstate compact addressing cooperative co-licensure of vehicles, services and personnel, and establishment of mutual assistance agreements along state borders. Citing new Weapons of Mass Destruction concerns, approach neighboring states in an attempt to implement these compacts;
- ◆ Seek vehicle replacement funding sources for services in low population, low call volume areas which already have made efforts to utilize traditional sources of funding (e.g. patient billing revenue);
- ◆ Create an air medical subcommittee of the EMSAC to establish statewide launch protocols and to address service coordination and integration within the EMS system;
- ◆ Use the communications subcommittee of the EMSAC to examine best practices for integrated, prioritized and sequenced systems of transportation asset dispatch and attempt to create statewide capacity with the new communications system and promote Emergency Medical Dispatch;
- ◆ ***Mandate EVOC for all ambulance vehicle operators;***
- ◆ ***Certify First Responders. Promote their use by ambulance services for driving and non-transport roles; and***
- ◆ Consider creating licensure status for First Responder (non-transporting) services.

E. FACILITIES

Standard

It is imperative that the seriously ill patient be delivered in a timely manner to the closest appropriate facility. The lead agency has a system for categorizing the functional capabilities of all individual health care facilities that receive patients from the out-of-hospital emergency medical care setting. This determination should be free of political considerations, is updated on an annual basis and encompasses both stabilization and definitive care. There is a process for verification of the categorizations (i.e., on-site review). This information is disseminated to EMS providers so that the capabilities of the facilities are known in advance and appropriate primary and secondary transport decisions can be made. The lead agency also develops and implements out-of-hospital emergency medical care triage and destination policies, as well as protocols for specialty care patients (such as severe trauma, burns, spinal cord injuries and pediatric emergencies) based on the functional assessment of facilities. Criteria are identified to guide interfacility transport of specialty care patients to the appropriate facilities. Diversion policies are developed and utilized to match system resources with patient needs; standards are clearly identified for placing a facility on bypass or diverting an ambulance to another facility. The lead agency has a method for monitoring if patients are directed to appropriate facilities.

Progress on Meeting 1994 Recommendations

- ◆ The Trauma System Advisory Committee has developed criteria to classify trauma facilities but the process has not been implemented.
- ◆ The Trauma Systems Advisory Committee has also created triage and interfacility transfer criteria, but they have not been implemented.

Status

South Dakota is a large, rural state, with 62 hospitals, 50 of which are community hospitals, most of which are small and located in widely dispersed communities. Only three of the facilities are large and urban, the remaining 47 being Community Access Hospital eligible. Of the latter, 27 are actually designated as Community Access Hospitals. Thirty-nine of the total are owned or managed by one of three health care systems. Outside of the two largest cities, emergency department staffing is predominantly by family practitioners. Five hospitals have emergency rooms staffed 24 hours daily, seven have full time emergency room staffing by designated personnel, and the remainder have emergency rooms staffed

part time or by Registered Nurses only. In addition, there are five Indian Health Service and three Veteran's Administration Hospitals within the state.

At present, there is no data regarding resources available at individual facilities for use in developing appropriate destination or transfer protocols. Therefore, transport destinations are predominantly based on physician preference, historical referral patterns, or health plan/health systems affiliations. For the most part, the great distance between facilities (with two exceptions) precludes triage protocols involving bypass, but there are no triage protocols for mass casualty distribution.

The South Dakota Association of Health Care Organizations (SDAHCO) is supportive of and recognizes the importance of emergency medical services to the hospital, its patients, and the community. There is interest in assuring integration of common goals in patient care, and a genuine desire to integrate hospital and EMS QA/QI processes. It is recognized, however, that financial assets are not available in most instances to allow hospital subsidy or ownership of emergency medical services.

Recommendations

The State Office of EMS should:

- ◆ Assure that the South Dakota Association of Health Care Organizations is represented on the Emergency Medical Services Advisory Council;
- ◆ Analyze the clinical care capabilities of all South Dakota hospitals for the purpose of:
 - Designing EMS destination protocols,
 - Planning mass casualty triage protocols;
- ◆ ***Assure that all hospital disaster plans are integrated with the community wide disaster and bioterrorism plan;***
- ◆ Conduct a joint OEMS and SDAHCO survey of all hospitals regarding their potential need to utilize EMS personnel. If this indicates a perception of need, research the hospital licensure statute, the medical practice act, and the nursing practice act to determine their impact on the use of EMS personnel in the hospital facility.

F. COMMUNICATIONS

Standard

A reliable communications system is an essential component of an overall EMS system. The lead agency is responsible for central coordination of EMS communications (or works closely with another single agency that performs this function) and the state EMS plan contains a component for comprehensive EMS communications. The public can access the EMS system with a single, universal emergency phone number, such as 9-1-1 (or preferably Enhanced 9-1-1), and the communications system provides for prioritized dispatch. There is a common, statewide radio system that allows for direct communication between all providers (dispatch to ambulance communication, ambulance to ambulance, ambulance to hospital, and hospital to hospital communications) to ensure that receiving facilities are ready and able to accept patients. Minimum standards for dispatch centers are established, including protocols to ensure uniform dispatch and standards for dispatcher training and certification. There is an established mechanism for monitoring the quality of the communication system, including the age and reliability of equipment.

Progress on Meeting 1994 Recommendations:

- ◆ The State is in the process of installing a statewide digital radio system that will cover all fire, EMS, and law enforcement. Mobile radios and a portable with a vehicular extender will be given to every ambulance in the state. All hospitals will also be equipped with the system.

Status

South Dakota has progressed in its development of county 9-1-1 centers since the original EMS system assessment in 1994. Currently, 38 counties have enhanced 9-1-1 centers, 7 have Automatic Number Identification (ANI) and 12 have basic systems. Nine counties have no centralized dispatch center at all. There is evidence of consolidation of 9-1-1 centers to achieve efficiencies of scale in combined rural counties. 9-1-1 centers can be classified as sophisticated to basic and non-existent in some frontier counties. The state is soon requiring counties without 9-1-1 services to designate a county center. Otherwise, another 9-1-1 center in a nearby county may be designated by the state, or local telephone company.

There is no lead agency for 9-1-1 center development. Much of this evolution seems to have been taken on as a local mandate supported by local funding and some tariff

contributions. 9-1-1 centers have developed their own standards of operation without consistency or centralized guidance from a lead governmental agency. Likewise, Emergency Medical Dispatch (EMD) programs in 9-1-1 centers are evolving similarly without guidance. Currently, three different nationally recognized EMD programs are being used within the state, but not all 9-1-1 centers are using EMD. Medical Director involvement during the development of these programs seems to have been minimal.

The centerpiece of the state's communications effort is the development of a statewide, digital communications system. This system will provide for unprecedented interoperability between agencies, disaster and major event management capability, and enhanced dispatch-to-vehicle and vehicle-to-hospital communications. This \$22 million dollar system is being designed and implemented by the state's selected vendor, Motorola. State Radio is the agency responsible for the system's management and ongoing maintenance. Interestingly, the state has chosen to use the vendor to educate responders in the operation of the system. The state is also assisting in rural addressing for enhanced 9-1-1 center counties.

The state operates three regional dispatch centers but there was a lack of clarity as to how these centers would interact with local EMS agencies, if at all. State Radio appears to be adequately staffed to maintain the new system with two engineers and eight technicians for 41 towers and 27 dispatchers for three dispatch centers.

Recommendations

The State Office of EMS should:

- ◆ ***Establish an EMS Communications Subcommittee of the EMSAC to:***
 - ***Develop legislation and rules pertaining to OEMS as the lead agency for Emergency Medical Dispatch standards for training, certification, and operations;***
 - Select a single EMD program for statewide use and certification;
 - Develop and coordinate EMS radio procedure and protocols.
- ◆ Establish an EMS Physician, Physician Extender, and Physician Surrogate base station course and require it for all on-line medical command centers;
- ◆ Assure EMS representation on planning and implementation committees or other structures relating to the statewide communications system.

G. PUBLIC INFORMATION, EDUCATION AND PREVENTION

Standard

To effectively serve the public, each State must develop and implement an EMS public information, education and prevention (PIEP) program. The PIEP component of the State EMS plan ensures that consistent, structured PI&E programs are in place that enhance the public's knowledge of the EMS system, support appropriate EMS system access, demonstrate essential self-help and appropriate bystander care actions, and encourage injury prevention. The PIEP plan is based on a needs assessment of the population to be served and an identification of actual or potential problem areas (i.e., demographics and health status variable, public perceptions and knowledge of EMS, type and scope of existing PIEP programs). There is an established mechanism for the provision of appropriate and timely release of information on EMS-related events, issues and public relations (damage control). The lead agency dedicates staffing and funding for these programs, which are directed at both the general public and EMS providers. The lead agency enlists the cooperation of other public service agencies in the development and distribution of these programs, and serves as an advocate for legislation that potentially results in injury/illness prevention.

Progress on Meeting 1994 Recommendations

- ◆ The South Dakota Department of Health has created Web site and EMS information on all aspects of the program is available on the site.
- ◆ The EMS Office has dedicated one staff person to the Safe Communities Program for the last two years.

Status

The primary activities of OEMS directly contributing to public information, education, and prevention reside in the Safe Communities program. Although the position leading this activity is currently vacant, approximately 10-12 communities are exercising approaches and message delivery introduced through the Office's initiative. This rare placement of a Safe Communities project in a state EMS office (as opposed to the state Office of Highway Safety or intrastate regional positions) offers significant potential for integration of mutual interests for both the EMS system and the state Office of Highway Safety (OHS). OHS also serves as a needs identification and material distribution source for activities aimed at reducing death and disability from motor vehicle related incidents.

EMS Day at the Legislature is another key outreach opportunity that has traditionally been

coordinated by OEMS. Materials supplied to the assessment team indicated that this activity may be delegated to the state EMT association, which may serve as a powerful springboard for the association to adopt other information and education programs. To date, distribution of priority information through the EMT association has been limited to an article written by the state EMS director in the association newsletter according to testimony during the assessment. The EMS for Children (EMSC) Program, currently designated to execute federal grant funded activities, is another resource dispensing PIEP program resources such as poison control materials, bike helmets, and EMSC products and literature.

Noticeably absent from the South Dakota EMS system is use of the NHTSA Public Information Education and Relations (PIER) program at the local level, surveys of public expectations and system awareness, and evidence of the use of other national programs such as “1st There, 1st Care” and “Make the Right Call”. At the local level, however, there have been victories related to public access defibrillation programs, the “Heart on the Hill” initiative, and individual EMS agency outreach and presence at community events.

Recommendations

The State Office of EMS should:

- ◆ Establish a PIEP subcommittee of the EMSAC, with an initial goal of identification and collaboration among entities engaging in formal EMS-specific or EMS-favorable PIEP activities (e.g., OHS, EMSC, EMT association.)
- ◆ Expand the state EMS Instructor/Coordinator cadre role to include delivery of train-the-trainer capacity in the NHTSA PIER program;
- ◆ Partner with the Health Promotion office and any others in the Department of Health that regularly engage in public education and prevention programs to identify best practices and ancillary methods for communication of EMS-specific initiatives;
- ◆ Survey (via the Behavioral Risk Factor Survey and other means) customers’ and potential consumers’ expectations and knowledge about the EMS system and its capabilities;
- ◆ Survey (via the license application) ambulance services about known community events scheduled for the upcoming year such as rodeos and fairs. Post this information on an area of the state EMS website dedicated to PIEP and allow all partners to offer materials and program goods to the EMS agencies for their use at those events.

H. MEDICAL DIRECTION

Standard

EMS is a medical care system that involves medical practice as delegated by physicians to non-physician providers who manage patient care outside the traditional confines of office or hospital. As befits this delegation of authority, the system ensures that physicians are involved in all aspects of the patient care system. The role of the State EMS Medical Director is clearly defined, with legislative authority and responsibility for EMS system standards, protocols and evaluation of patient care. A comprehensive system of medical direction for all out-of-hospital emergency medical care providers (including BLS) is utilized to evaluate the provision of medical care as it relates to patient outcome, appropriateness of training programs and medical direction. There are standards for the training and monitoring of direct medical control physicians, and statewide, standardized treatment protocols. There is a mechanism for concurrent and retrospective review of out-of-hospital emergency medical care, including indicators for optimal system performance. Physicians are consistently involved and provide leadership at all levels of quality improvement programs (local, regional, state).

Progress on Meeting 1994 Recommendations

- ◆ A training program for medical directors was developed and offered at six sites. On average about five physicians attended per site.

Status

South Dakota does not have a State EMS Medical Director.

Sioux Falls and Rapid City have developed excellent urban models for medical direction and there is also a beautiful rural model for medical control in Minnehaha County. These involved a tremendous amount of thought and effort and these groups are to be commended.

In a survey of ambulance services, 89/105 services reported having a physician medical director with other services reporting a physician extender medical director. Only three services reported no medical direction at this time. It is unclear though to what extent each practitioner participates in activities with EMS personnel. In addition, there are no clear guidelines addressing what is expected from those who do assume this responsibility. Physician medical directors may include those not trained in emergency medicine who may require additional education. One physician testified that involvement in EMS can be

an additional burden to those already taxed as the only physician in a county or town. The OEMS is commended for development and delivery of a Medical Directors Course.

There is no statewide medical directors committee. There are no statewide ALS protocols, and established BLS protocols are not mandated.

The roles and authority of local EMS medical directors are not clearly defined. Particular concerns include issues of signing off on individual paramedics and disciplinary matters. Apparently, some physicians have expressed concern about their legal risk while serving as medical director of an ambulance service.

The agency application for licensure does not elicit contact information for the services' medical directors.

Recommendations

The State Office of EMS should:

- ◆ ***Establish a statewide EMS Medical Director with a clear description of authority and responsibilities;***
- ◆ ***Develop a system of medical direction for the entire State to include the EMS Medical Director working next to the OEMS Director, assisted by administrative and technical staff as deemed necessary. The State EMS Medical Director should be assisted in addition by the medical directors subcommittee of EMSAC;***
- ◆ ***Require EMS medical direction for all ambulance services. The expectations of the EMS medical director should be reasonable and clear and would ensure actual involvement at the local level. Where physicians are not available to be local medical directors, physician extenders with physician backup, should be utilized;***
- ◆ Develop a plan for recruitment of local EMS medical directors for these local positions and provide model job descriptions;
- ◆ Continue and revise, as needed, the Medical Directors Course. It may be worthwhile to offer the course and other EMS information as part of the state medical societies' annual conventions, or some time when already too busy doctors have managed some time away from clinical care;
- ◆ Develop protocols requiring EMS personnel to obtain on-line medical control after

standing ALS orders have been completed if further treatment is required;

- ◆ ***Assure availability of on-line medical direction for any level of EMS provider with a problem or question during treatment or transportation.***
- ◆ Develop and promulgate statewide standards and protocols for all EMS levels;
- ◆ Explicitly define the role of the service medical director in licensure/delicensure and other disciplinary or quality improvement matters;
- ◆ Consult with legal counsel concerning vicarious liability and pursue legislation to limit liability of EMS Medical Directors.

I. TRAUMA SYSTEMS

Standard

To provide a quality, effective system of trauma care, each State must have in place a fully functional EMS system; trauma care components must be clearly integrated with the overall EMS system. Enabling legislation should be in place for the development and implementation of the trauma care component of the EMS system. This should include trauma center designation (using ACS-COT, ACEP, APSA-COT and/or other national standards as guidelines), triage and transfer guidelines for trauma patients, data collection and trauma registry definitions and mechanisms, mandatory autopsies and quality improvement for trauma patients. Information and trends from the trauma registry should be reflected in PIER and injury prevention programs. Rehabilitation is an essential component of any statewide trauma system and hence these services should also be considered as part of the designation process. The statewide trauma system (or trauma system plan) reflects the essential elements of the Model Trauma Care System Plan.

Progress on Meeting 1994 Recommendations

- ◆ In 1995 the Trauma System Advisory Committee was appointed by the Governor and the Department of Health.
- ◆ Much of the work of the Committee is contained in the "South Dakota Trauma Systems Project" booklet.
- ◆ The Committee has made trauma presentations at approximately 20 hospitals.
- ◆ The Committee has now become the Trauma Stakeholders group and is a part of the trauma funding available through the EMSC Program.
- ◆ The Cales Trauma Registry has been purchased through the Department of Health and is currently being used by four hospitals.
- ◆ The Development of Trauma Systems course was conducted in Sioux Falls in 1996.
- ◆ Prehospital triage and transport protocols and interhospital transfer criteria have been established but not implemented.

Status

Although there is not an organized trauma system within the state, there are two American College of Surgeons (ACS) verified level II hospitals and one hospital committed to eventual level III verification. Seven hospitals have defined trauma teams with basic guidelines for their activation, and four hospitals currently use the trauma registry selected

for statewide use in 1989. There is in place an excellent description of a trauma program, the "Trauma System Project", that defines appropriate levels of trauma hospitals, protocols for trauma team activation, triage, and transfer, and contains letters of support from the major stakeholders. There is an ongoing partnership between the state OEMS and the University of South Dakota EMSC office that allows continuing progress toward a trauma system and the preservation of an active Trauma Stakeholders Group. The remaining Federal Trauma System Grant Program funds have been used as a "mini-grant" to a potential Area Trauma Hospital to assess and develop its trauma program, evaluate its systems relationship with surrounding Trauma Receiving Hospitals, and to solidify the resulting system. These funds were made available by members of the Trauma Stakeholders Group, who declined reimbursement for incurred expenses. The current OEMS Director is the former South Dakota EMS Trauma Coordinator.

Even though the testimony indicated a lack of surgical commitment to a trauma system, it appears that ten of the general surgeons in the state are committed and have knowledge of the process. Support by 20% of the surgeons in the state should be regarded as a positive factor and not an impediment to the development of a system.

At the present time there is not enabling legislation for a trauma system, no lead agency, and no system registry. The trauma system program has not been implemented, designation cannot take place and the triage and transfer protocols are not mandated. There is no system QA, knowledge of injury patterns, nor a registry based systemwide injury prevention program.

Recommendations

The State Office of EMS should:

- ◆ Continue to build on the established assets and momentum of the evolving system;
- ◆ ***Establish OEMS as the lead authority for the trauma system;***
- ◆ ***Establish and fund the position of a Trauma Program Manager;***
- ◆ ***Draft and enact trauma system statutory legislation;***
- ◆ Select and institute a system trauma registry;
- ◆ Reestablish a Trauma Advisory Subcommittee under the EMSAC;
- ◆ Pursue alternate funding for implementation of the trauma system;
- ◆ Pursue system development with the Office of Rural Health;

- ◆ Continue to solidify the existing partnership with the University of South Dakota.

J. EVALUATION

Standard

A comprehensive evaluation program is needed to effectively plan, implement and monitor a statewide EMS system. The EMS system is responsible for evaluating the effectiveness of services provided victims of medical or trauma related emergencies, therefore the EMS agency should be able to state definitively what impact has been made on the patients served by the system. A uniform, statewide out-of-hospital data collection system exists that captures the minimum data necessary to measure compliance with standards (i.e., a mandatory, uniform EMS run report form or a minimum set of data that is provided to the state); data are consistently and routinely provided to the lead agency by all EMS providers and the lead agency performs routine analysis of this data. Pre-established standards, criteria and outcome parameters are used to evaluate resource utilization, scope of services, effectiveness of policies and procedures, and patient outcome. A comprehensive, medically directed, statewide quality improvement program is established to assess and evaluate patient care, including a review of process (how EMS system components are functioning) and outcome. The quality improvement program should include an assessment of how the system is currently functioning according to the performance standards, identification of system improvements that are needed to exceed the standards and a mechanism to measure the impact of the improvements once implemented. Patient outcome data is collected and integrated with health system , emergency department and trauma system data; optimally there is linkage to data bases outside of EMS (such as crash reports, FARS, trauma registry, medical examiner reports and discharge data) to fully evaluate quality of care. The evaluation process is educational and quality improvement/system evaluation findings are disseminated to out-of-hospital emergency medical care providers. The lead agency ensures that all quality improvement activities have legislative confidentiality protection and are non-discoverable.

Progress on Meeting 1994 Recommendations

- ◆ In March of 2002 a new statewide EMS data reporting system was installed. The Department bought computers for 112 of the 130 ambulance services. The data is now entered directly into the services data base and on a monthly basis non-confidential information is downloaded to the state system.

Status

The Office of EMS has recently instituted a new statewide run reporting process and EMS run report data will soon be submitted electronically, with OEMS receiving only non-confidential information.

A close and productive relationship exists between OEMS and the Office of Highway Safety.

There is no system, at present, which evaluates the treatment of children and adults in the state of South Dakota requiring EMS. Some larger ambulance services do QA/QI within their service, but this information is used only internally. Whether this information results in remediation and/or discipline, if necessary, is nebulous. It is not communicated to OEMS.

The OEMS currently has no plan for the use of QA/QI information.

South Dakota has highway mortality rates, suicide rates and infant/child mortality rates that are above the average national rates. Testimony indicated that some of these rates are among the highest in the nation.

Recommendations

The State Office of EMS should:

- ◆ Establish QA/QI guidelines to aid local medical directors in evaluating their services;
- ◆ Establish QA/QI guidelines to be used within OEMS for improvement of its own performance;
- ◆ ***Develop key items which should be tracked across the state, for example, call type by location, scene times, patient refusals, interfacility transfers, and trauma port of entry;***
- ◆ ***Establish a method of due process and rapid resolution to respond to complaints and allegations of substandard care;***
- ◆ ***Pursue linkage of the trauma registry, Department of Transportation crash records and OEMS data;***
- ◆ ***Lead the formation of a statewide child mortality review team.***

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George S. Mickelson Memorial Fellowship of the Western Governors' Foundation
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Idaho Preventative Health Advisory Committee
Member
National Association of State EMS Directors
President, Past Treasurer
National Registry of EMT's
Advanced Level Representative and retired Paramedic
University of Maryland Baltimore County, Emergency Health Services Department
Visiting Instructor
EMS Education Agenda for the Future
NHTSA Writing Team
Intelligent Transportation Systems Public Safety Advisory Group
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NHTSA Technical Assistance Program, Team Member for the States of Delaware, South Carolina, Georgia, South Dakota, American Samoa, and California

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ORGANIZATIONS/ APPOINTMENTS

National Registry of EMTs, EMT- Paramedic
National Association of State EMS Directors
President Elect
Conference Committee Chair,
National Rural Health Association, Chair, Ad Hoc Subcommittee for Rural/Frontier EMS
Position Paper
National Research Council, Transportation Research Board, Strategic Highway Safety
Plan, Expert Writer
Atlantic EMS Council, Member
National Registry of EMTs, Board of Directors, Standards and Examinations Committee,
Practice Analysis Committee, Oral Station Development Committee, Data Committee,
Strategic Planning Committee,
National Rural EMS Leadership Conference, Invitee
EMS Agenda for the Future, National Leaders Conference, Invitee
EMS-C Five-Year Plan Task Force, Member
USDOT-NHTSA Emergency Medical Services Assessment Program, Technical
Assistance Team Member, States of Nebraska, Tennessee, Connecticut, and
Pennsylvania.
USDHHS-HRSA-Maternal and Child Health Bureau, EMS for Children Partnership Grant,
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ORGANIZATIONS/APPOINTMENTS

State of Maine EMS, Past Director, (1986-1996)
NAEMSD/NAEMSP Leadership Group, Coordinator
ComCare Alliance, NASEMSD Liaison, ACN Committee
USDOT Wireless 9-1-1 Steering Council
American Heart Association, ACLS Instructor
National Association of EMTs, PHTLS Instructor
AMPS Ambulance, Director, Paramedic
CES Ambulance, Director, Paramedic
LifeStar Ambulance, Director, Paramedic
Rangeley Ambulance, Director, Paramedic
Sugarloaf Ambulance/Rescue Director, Paramedic
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National Highway Traffic Safety Administration
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National Association of State EMS Directors (1979-1996)
Past President
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National Association EMS Physicians, Member
American Medical Association
Commission on Emergency Medical Services (Former)
American Trauma Society
Founding Member, Past Speaker, House of Delegates
Institute of Medicine/National Research Council
Pediatric EMS Study Committee, Member (Completed 1994)
Committee Studying Use of Heimlich Maneuver on Near Drowning Victims,
Member (Completed 1995)
World Association on Disaster and Emergency Medicine, Member
Executive Committee, Former Member
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Montana Trauma Registry Task Force
Montana EMS Advisory Council, Chair
Montana ATLS, National Faculty
Rocky Mountain Rural Trauma Symposium
Program Director
American College of Surgeons, Fellow
MT Committee on Trauma, Chairman 1978-1988
ACS Committee on Trauma 1986-1996
ATLS Committee/National Faculty
AD HOC Committee for Revision of Optimal Resources Document
Past Chairman, Emergency Services/Prehospital Subcommittee
Past Chairman, AD HOC Committee on Rural Trauma
Centers for Disease Control, Consensus Committee on Trauma Registries
Task Force for Acute Care System, Trauma, HRSA
USDOT, NHTSA EMS Program, Technical Assistance Team, Member, States of Alaska, Iowa, Nebraska, Tennessee, West Virginia, Indian Health Service, National Park Service, American Samoa and Alaska, Ohio, and Wisconsin Reassessments.

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